

Economics Group

Special Commentary

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Raleigh Economy Remains on Track

Executive Summary

- Raleigh remains one of the nation’s fastest growing economies, with payrolls rising at a more than 3% annual pace—well ahead of the national and statewide rates. Durham-Chapel Hill also continues to post solid gains, with payrolls rising 0.8% in 2019.
- The Triangle region is anchored by three major research institutions which fuel an ecosystem of innovation and collaboration with the private sector and government. Many graduates stay in the region, which ranks near the top of many quality of life rankings, including best places to live, do business, raise a family or start a career.
- The Triangle has one of the nation’s most highly educated workforces and one of the highest concentrations of high-paying STEM jobs. The Triangle’s median income is over \$70,000 and Wake County’s per capita income is the highest in the state.
- The Triangle’s economy is seeing broad-based job gains, led by cloud-based software, finance & insurance, life sciences and biotechnology. The region is also one of the nation’s largest clinical research and healthcare diagnostics centers.
- Despite persistently strong growth, the Triangle maintains a significant affordability advantage over tech-driven economies like the San Francisco Bay Area, Seattle, Boston or Washington, D.C. The relative cost advantage is pulling in scores of new residents and businesses. Raleigh’s population has grown 19.8% since 2010, the third strongest among major metros. The rapid growth has supported extensive residential and commercial construction.
- We expect the affordability migration to continue, as tech firms increasingly seek out lower costs areas where they can attract workers and remain near important customers.
- The Triangle is well positioned heading into the 2020s. The region is attracting scores of relocations and startups, including Advance Auto Parts, a Fortune 500 company that relocated its headquarters to Raleigh in late 2018.

Figure 1

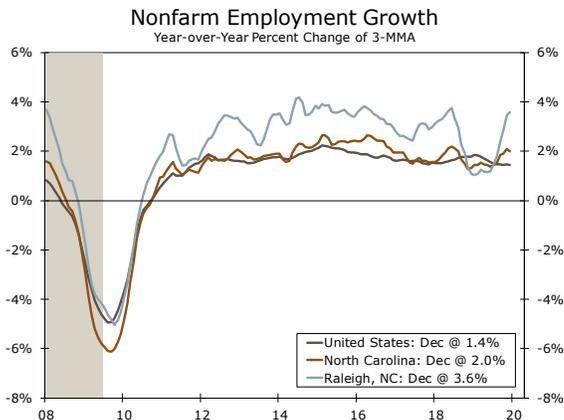
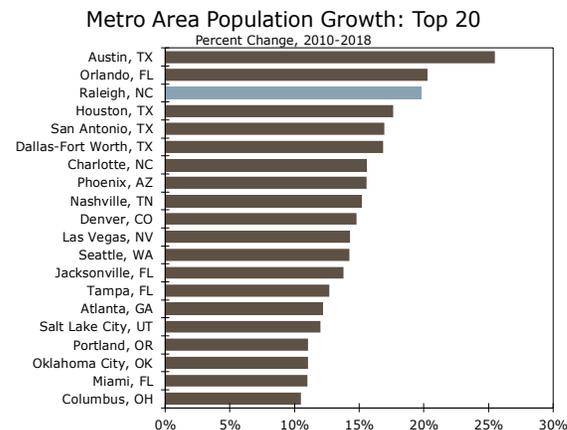


Figure 2



Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities



Raleigh's growth is broadening.

Raleigh Job Growth Picks Up Again

After losing momentum in late 2018, the Raleigh area economy appears to have gotten back on track this past year, with payrolls rising more than 3% in 2019. Job growth this expansion has consistently outpaced the nation and the rest of the state, while the late-2018 slowdown never looked quite right to us and was likely due to Hurricane Florence disruptions. Hiring is now firmly on the upswing, confirmed by a bevy of corporate relocation and expansion announcements across tech, healthcare and finance. The composition of growth is continuing to change, tilting away from the earlier dependence on tech hardware into faster growing software development, cloud-based services, life sciences and healthcare.

As shown in Figure 3, the Raleigh area held up better than the state's other major metro areas during the Great Recession and recovered sooner. Nonfarm payrolls across the Triangle recovered all the jobs lost during the recession by July 2012, well before Charlotte (September 2013) and North Carolina as a whole (October 2014). Since the recession, Charlotte and Raleigh have both significantly outperformed most of the state's other metros and rural areas, a trend mirrored nationwide as investment and migration have increasingly flowed to a handful of large cities that offer a variety of employment opportunities and lifestyle amenities. North Carolina is the only state besides Florida and Texas that has more than one major metropolitan area ranked among the nation's 20 fastest growing.

Figure 3

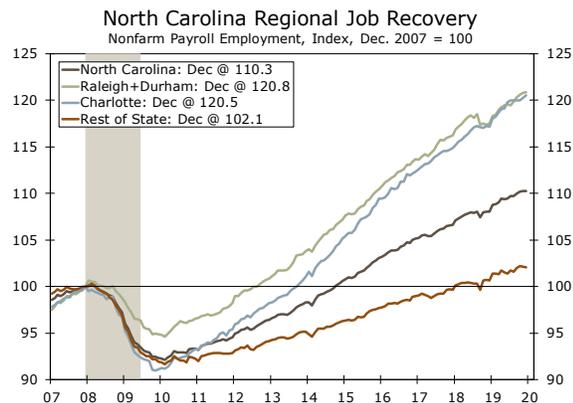
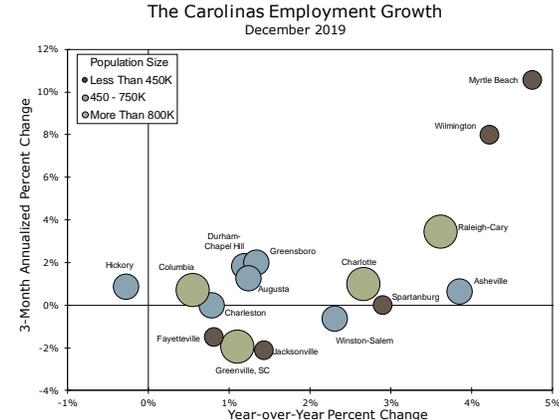


Figure 4



Source: U.S. Department of Labor and Wells Fargo Securities

Raleigh and Charlotte are both affordable and rapidly growing, but their economies are structured differently. The composition of Raleigh's economy, with its heavy concentration of healthcare, education and government jobs, offers it considerable downside protection. Indeed, Raleigh tends to see employment fall less sharply and its unemployment rate tends to rise less than other areas in North Carolina during cyclical downturns. That, of course, is not to say the economy lacks vibrancy or high-growth prospects. Raleigh also has one of the heaviest concentrations of tech and research jobs in the country, and it has consistently outperformed the nation and the state the past three decades.

The bulk of this growth has been in high-skilled, high-paying industries. Payrolls in professional & technical services, education & health services and financial activities have grown 73%, 35% and 27%, respectively, since 2010. This growth has propelled wages & salaries 28% higher and per capita income 29% higher. Per capita income in Wake County is the second highest in the state, behind Orange County (home to Chapel Hill), and is 32% above the state average. Durham's per capita income is 11% higher than the state average.

North Carolina boasts a stable and business-friendly regulatory environment, ranking as the Forbes #1 Best State for Business the past three years, but the Triangle has a host of unique characteristics beyond low corporate taxes that have made its economy so dynamic. It is anchored by three major research institutions. Duke University (ranked #10 by U.S. News & World Report, with 16,000 students) in Durham, the University of North Carolina in Chapel Hill (#29 overall and #6 public university, with 30,000 students) and NC State in Raleigh (#34 engineering, with 34,000 students) provide a pipeline of talent and research funding. Moreover, the region's healthy employment prospects, affordability and mild climate convince many of these graduates to stay. Raleigh ranks fourth in the

Raleigh's growth has been tilted towards high-skilled, high-paying industries.

nation in educational attainment, following Seattle, San Francisco, and Washington, D.C., with 51% of adults holding a bachelor’s degree or higher. Using the Bureau of Labor Statistics (BLS) Occupational Employment Statistics data, the Durham-Chapel Hill MSA, which includes the bulk of Research Triangle Park, ranks as the fifth most STEM-intensive labor market in the country, after St. Mary’s County, MD; San Jose, CA; Boulder, CO; and Huntsville, AL. The concentration of STEM jobs has driven income growth higher and created significant potential for knowledge spillovers, which have driven innovation and startups. This critical mass of highly educated workers concentrated in STEM industries is the result of a concerted effort to promote collaboration between the universities, the government and the private sector, particularly at Research Triangle Park.

The Evolving Triangle Tech Sector

Research Triangle Park (RTP) was founded in 1959 to catalyze North Carolina’s transition from tobacco, textiles and furniture into emerging technologies. The Park has been such a resounding success that the moniker for the region, “the Research Triangle,” is now more widely known than its three principal municipalities: Raleigh, Durham and Chapel Hill. RTP is located between the three, roughly 15 miles west of downtown Raleigh, eight miles east of downtown Durham, and 14 miles east of Chapel Hill. Nearly 75% of the 7,000-acre park is located in Durham County, with the remainder in Wake County. RTP is home to more than 300 companies that collectively employ more than 53,000 workers. The collaboration between the private sector, three Tier-1 research universities and the state government—succinctly expressed by the RTP slogan of ‘Where people + ideas converge’—has produced one of the nation’s most prolific innovation ecosystems. Indeed, RTP is the largest research park in the nation, and the concentration of talent in such a small area is rivalled only by the San Francisco Bay Area, San Diego, Austin and Boston. The Triangle, however, has a massive affordability advantage that will likely sustain its growth into the next decade as tech investment and workers increasingly flow to secondary cities with lower costs, taxes and regulation.

RTP is the largest research park in the U.S.

The Triangle’s emergence as one of the nation’s key innovation hubs was initially led by large corporations, such as IBM, which now employs more than 10,000 in the area; Burroughs-Wellcome, which is now part of pharmaceutical giant GlaxoSmithKline; and software analytics firm SAS Institute. SAS began in 1976 as an NC State project and is now the largest privately held software company in the world, with around 6,000 employees at its Cary headquarters campus. Other large tech employers include Cisco Systems, Conduent, Xylem, Lenovo, Wolfspeed and Red Hat, which was purchased by IBM in 2019. IBM employs more workers in the Triangle than in any other U.S. metro area.

Figure 5

Raleigh MSA Employment Growth By Industry
 Year-over-Year Percent Change, 3-MMA

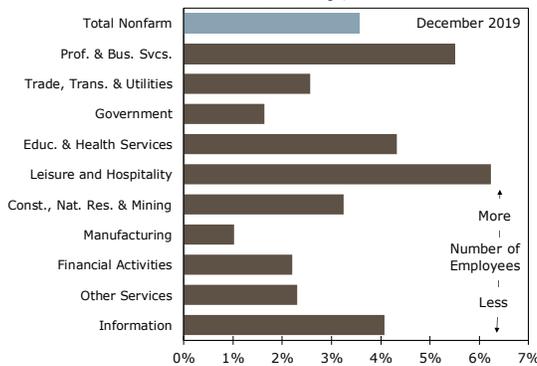
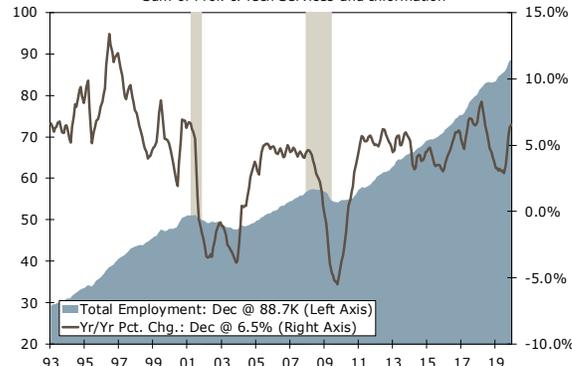


Figure 6

Raleigh MSA Tech-Related Employment
 Sum of Prof. & Tech Services and Information



Source: U.S. Department of Labor and Wells Fargo Securities

While much of RTP’s early growth focused on tech hardware, the bulk of recent growth has come from cloud-based IT services and the intersection of software with finance and life sciences. Contract research organizations (CROs), which conduct clinical trials and analyze the results for pharmaceutical companies, collectively employ more than 20,000 workers in the Triangle, the largest concentration in the nation. The past decade has also seen a resurgence in the region’s downtown areas, particularly Raleigh and Durham, as tech and life sciences firms increasingly look

The composition of growth has shifted.

The Triangle is winning expansions and relocations seemingly every week.

to locate in urban areas, where they can tap into the growing pool of young college graduates drawn to the abundance of entertainment options.

The Triangle is winning expansions and relocations seemingly every week. Epic Games—whose smash hit video game Fortnite catapulted it to a \$15 billion valuation and made it North Carolina’s most valuable startup—is adding 500,000 square feet to its headquarters off Crossroads Boulevard in Cary to accommodate 2,000 new jobs. Pendo, a digital products tech company founded in Raleigh, is in the process of adding 600 jobs over the next four years in Wake County, while Microsoft is adding 500 new jobs in Morrisville. Xerox is adding 600 new jobs with an average salary of over \$112,000 in Cary, where it is creating its fourth North American ‘Center of Excellence’ (the others in tech hubs Palo Alto, Rochester and Toronto). It received an incentive package from Wake County, the Town of Cary and the NC Community College System. In addition, operations management software provider Dude Solutions is adding 200 new jobs in Cary. The Microelectronics Center of North Carolina, established by the state legislature in 1980 to catalyze technology-based economic development, is another example of the collaboration between government, higher education and the private sector. It continues to fund a variety of [projects](#), most recently the laying of more than 100 miles of new fiber cable across the Triangle.

The large public sector in Raleigh, the capital of North Carolina, as well as the large and recession-resilient university and healthcare employment base provide a significant stability. The Triangle’s largest employers include Duke University and Health System (almost 40,000 employees), North Carolina state government (25,000), Wake County Public Schools (20,000), WakeMed Health & Hospitals (9,000), UNC Rex Healthcare (7,000) and the city of Raleigh (4,000).

Raleigh also has a sizable finance and insurance cluster, with major operations of Fidelity Investments, Wells Fargo, Blue Cross and Blue Shield, First Citizens BancShares, MetLife’s Global Technology Campus and Credit Suisse, which recently opened a new building and is adding 1,200 IT, finance and management jobs to its existing operations. Policygenius, an online insurance platform, will hire 400 for a new technical and operations center in Durham County. More broadly, we would be remiss not to emphasize the role of the long-standing tech base in attracting finance and healthcare jobs, as both industries increasingly pivot to technology to address challenges and reach customers with innovative product and platform offerings.

Life Sciences Taking the Baton from Tech

Looking forward, biotech is a major growth area that Raleigh is well-positioned for. In 1984, the legislature followed up the establishment of the Microelectronics Center with another prescient move, establishing the North Carolina Biotechnology Center, the first state-sponsored biotech initiative in the United States. The state funding was crucial for establishing the early public-private-university partnerships, and life sciences in the Triangle have taken off in the past few years. According to CBRE, VC funding for the life sciences industry surged 86% last year to \$16 billion, and life sciences lab space under construction has more than doubled. The Triangle is in a prime position to capture this growth, with CBRE ranking Raleigh-Durham as the #5 life sciences market, after Boston, San Francisco, San Diego and New Jersey. The key characteristics of a life sciences hub read like a description of the Triangle—“combination of health institution and universities, a qualified workforce, a pipeline of industry funding, an ample base of lab space, and a solid technology industry.”

Biotech is taking off in Raleigh.

Startup AgBiome recently received a second round of founding from the Bill & Melinda Gates Foundation for its efforts to develop weevil-resistant sweet potatoes, a staple for much of the developing world. It is part of a growing agtech cluster—the first phase of the Center for AgTech has already leased all 175,000 square feet (including Arysta LifeScience, Boragen, Indigo Ag and Sygenta Crop Protection), and 160,000 more square feet is set to open this year. Investor interest in agtech, including precision farming, crop protection and gene editing, has surged, with the potential to shore up global food chains. Health care technology firm Well Dot is adding 400 jobs in Chapel Hill, while clinical laboratory firm Q2 Solutions is adding 750 jobs down the road in Durham to work on its precision medicine initiative.

Challenges—Infrastructure and Landing ‘The Big One’

Despite all its recent success, Raleigh has come up short in landing some potentially transformative relocations. Apple chose Austin over Raleigh for its new campus last year, the U.S. Army also chose Austin for its new Futures Command Center and, of course, Amazon selected Arlington, Virginia, for its HQ2. The lack of a huge development win has prompted some soul-searching across the Triangle and in the statehouse over the inability to land “the big one.” Charlotte’s emergence as a tech center is also a growing concern—for example, Microsoft is adding 500 jobs in Wake County, but also announced a few

months prior that it is adding 430 jobs to its existing hub in Mecklenburg County. For more on Charlotte’s recent success, see our recent [report](#).

In terms of infrastructure, the Raleigh-Durham International Airport (RDU) is adjacent to RTP and offers more than 60 non-stop flights. The airport, which served as the Southeast hub for American Airlines from 1987 to 1996, is now once again seeing rapid passenger growth, with 14.2 million passengers moving through its terminals this past year, an 11% increase from the prior year. I-40 connects the Triangle from east to west and is being widened to four lanes, while the I-440 beltline circles Raleigh and provides access to eastern North Carolina. Plans to complete the outer beltline—Complete 540—are in the works, but it remains years away. Adding an expressway to the southeastern portion of Wake County would ease congestion, and, more importantly, help bring some of the rapid growth in the northwest areas of Cary and Apex to the Holly Springs, Fuqua-Varina and Clayton areas.

Raleigh Union Station (RUS) opened in fall 2018 near downtown Raleigh and offers four trains a day to and from Charlotte, two trains to Washington, D.C. and New York City as well as service to Florida. The new station, built in the former Dillion Supply Viaduct building, better integrates rail service to downtown Raleigh and includes office and retail space. Phase Two of the project, RUS Bus, aims to further connect Amtrak with existing and future GoTriangle and GoRaleigh bus routes. The facility will be built on an old warehouse property and will incorporate a mixed-use high rise above the terminal with retail, office and housing space. It aims to open by 2022. Digital infrastructure, meanwhile, is top-notch. Raleigh has ranked #1 on Forbes’ Most Wired City list. The challenge remains securing adequate investment in infrastructure to ensure affordable and efficient connectivity across the various office park clusters of the Triangle, and throughout the rapidly growing Southeast.

Population Growth Should Remain Strong

From 2010 to 2018, Raleigh’s population rose an incredible 19.8%, the third strongest among large metro areas, behind only Austin and Orlando. As mentioned previously, it has generally been the ‘right’ kind of growth—young, college-educated job-seekers attracted by the region’s strong labor market—while the retiree population is also growing. On an absolute basis, Raleigh ranks 14th among major metro areas for net domestic migration since 2010, netting 124,000 new residents from other states. The young population also means that natural increase—births minus deaths—is contributing solidly to overall population growth.

More recent data from LinkedIn suggest that immigration has accelerated. We suspect that a growing number of tech firms and tech workers are looking to relocate from overheated tech markets in the West and looking for parts of the country that offer a higher quality of life. A recent study by Indeed.com ranked Raleigh as the fourth best city in terms of purchasing power for the tech job postings in their service. Charlotte ranked fifth.

Charlotte is increasingly competing as a tech center.

Population growth has been incredibly strong.

Figure 7

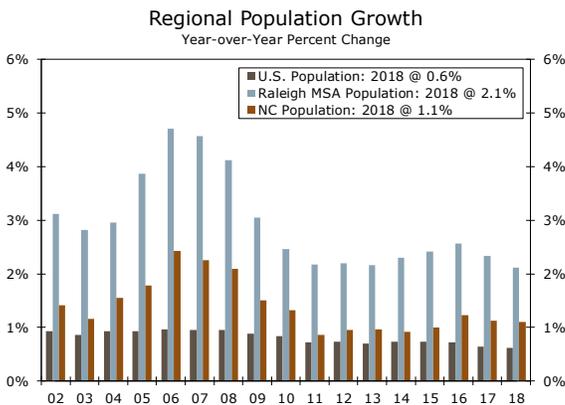
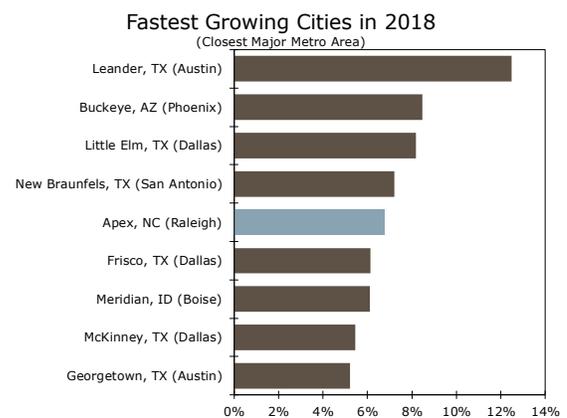


Figure 8



Source: U.S. Department of Commerce and Wells Fargo Securities

Recently released population estimates for 2019 placed North Carolina growth at 1.0%, which is double the nation’s 0.5% increase and the tenth highest in the nation. Raleigh’s population growth likely remained around 2% in 2019. Much of the growth has been in the suburbs, or even the ‘exurbs’—as seen

in Figure 8, Apex is one of the fastest growing suburbs in the country. On a county level, Wake County is by far the largest of the Triangle, and also saw the strongest percentage growth since 2010, up 20.4%, or 185,000 new residents. Johnston County, to the southeast of Raleigh, saw the second strongest at 19.4% (33,000 new residents), followed by Durham County at 16.7% (45,000 new residents).

Despite the tremendous labor force growth, the steady engine of job growth has brought the unemployment rate down to 3.5% from 9.1% at the beginning of 2010. Raleigh's unemployment rate typically is one of the lowest in the state.

Residential & Office Markets

Raleigh has seen an average of 4,000 apartment units delivered over the past five years, with the new supply met with healthy demand from the steady flow of new residents. The vacancy rate has fallen to around 6%, which has boosted rent growth to over 4% year-over-year. And while Raleigh is not as affordable as it once was, it still blows away comparable tech and life sciences hubs. An average monthly rent of around \$1,200 combined with median income of over \$70,000 is an attractive mix. Rents are slightly higher in the suburban sub-markets of North Cary/Morrisville, which are closer to RTP and its hundreds of employers. Indeed, the economic center of gravity of the Triangle is to the west of downtown Raleigh, which has been reflected in multifamily development.

Relative to the median income, rents are affordable.

Figure 9

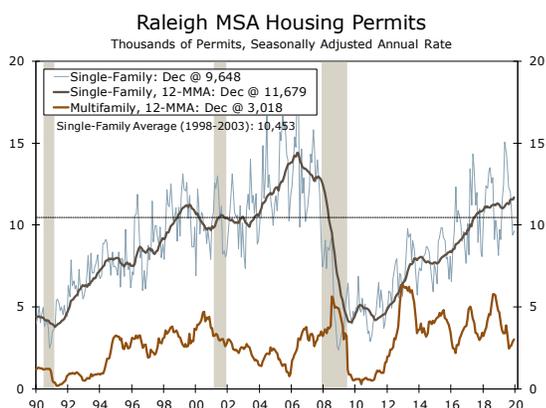
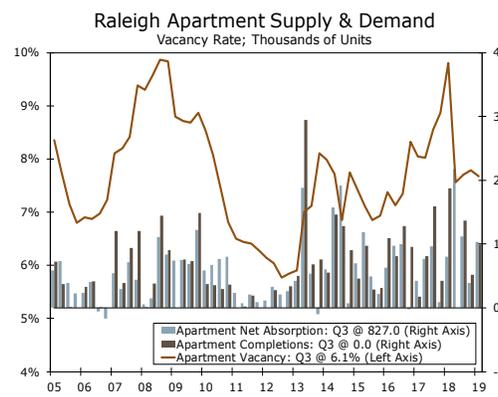


Figure 10



Source: U.S. Department of Commerce, CoStar, Inc. and Wells Fargo Securities

Robust residential construction has restrained price appreciation and allowed Raleigh to maintain its affordability advantage. Looking ahead, Raleigh has plenty of room to grow and is growing in all directions. Single-family housing permits are running above their long-term average, and apartment permits remain elevated. Home prices in Raleigh are rising 4.0% per year, which is slightly above the national rate of 3.7% but low compared to others rapidly growth areas and other major tech hubs. Prices are rising 3.9% in Durham-Chapel Hill.

The office market continues to perform well, supported by strong corporate demand and a low vacancy rate of just 5.3%. Rents are rising 5.2% year-over-year, despite solid construction activity, which is distributed fairly evenly across downtown and surrounding suburban areas. Downtown Raleigh has seen a great deal of activity in recent years, reflecting the desire of tech firms to locate in urban areas where young workers cluster. CoStar estimates that around 2.8 million square feet of office space are under construction, with around 40% pre-leased.

The greater preference for downtown Raleigh and downtown Durham has presented a threat to RTP, and efforts are underway to generate some of the energy found in urban areas. The Hub RTP development project intends to create a walkable urban core for RTP, with plans calling for up to six million square feet of high-rise office space, apartment complexes, hotels, restaurants, retail space and green spaces near the intersection of I-40 and Davis Drive, which offers convenient access to RDU, as well as downtown Raleigh and downtown Durham.

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